In the claims:

Please amend the claims as follows:

1. (Currently Amended) A chemical construct for use in solid phase synthesis comprising: a solid support Q having linked thereto via a connecting group Y a substrate R; the connecting group Y having first and second cleavage sites which are orthogonally and selectively cleavable; the second cleavage site being selectively cleavable to release the substrate; and the first cleavage site being located at a position between the second cleavage site and the solid support and being selectively cleavable to release a fragment Fr comprising the substrate and at least a portion of the connecting group Y; ~~characterised in that cleavage at the first cleavage site forms or introduces on the chemical fragment Fr at the first cleavage site~~ and a moiety comprising a sensitising group G in masked form on the chemical fragment Fr at the first cleavage site wherein the chemical fragment Fr contains a means for imparting a characteristic signature to the mass spectrum of the fragment ~~which sensitises the chemical fragment Fr to instrumental, e.g. mass spectroscopic, analysis.~~

2. (Cancelled)

3. (Currently Amended) A chemical construct according to claim ~~2~~ 1 wherein the characteristic signature is provided by incorporating into the fragment Fr a peak splitting isotopic label.

4. (Original) A chemical construct according to claim 3 wherein the peak splitting isotopic label is defined one or more isotope pairs selected from $^{1}H/H^{2}$ (D), $^{79}Br/^{81}Br$, $^{12}C/^{13}C$, $^{14}N/^{15}N$ and $^{16}O/^{18}O$.

5. (Currently Amended) A chemical construct according to claim ~~2~~ 1 wherein the means for imparting a characteristic signature to the mass spectrum of the fragment is located between the first and second cleavage sites.

6. (Previously Amended) A chemical construct according to claim 1 wherein the first and second cleavage sites cleavage sites are defined by first and second linker groups L^{1} and L^{2}.

7-9 (Cancelled)

10. (Previously Amended) A chemical construct according to claim 1 wherein the sensitising group G is an ionisable group which is ionisable under mass spectrometric conditions.

11. (Cancelled)

12. (Previously Amended) A chemical construct according to claim 1 wherein the group G is a basic amino group.

13. (Original) A chemical construct according to claim 12 wherein the basic amino group is a primary amino group.

14. (Original) A chemical construct according to claim 12 wherein the basic amino group is a tertiary amino group.

15. (Original) A chemical construct according to claim 14 wherein the tertiary amino group is a cyclic amino group.

16. (Original) A chemical construct according to claim 15 wherein the cyclic amino group is N-methylpiperazino.

17. (Previously Amended) A chemical construct according to claim 12 wherein the basic amino group is derived from the photochemical cleavage of a carbamate group.

18. (Currently Amended) A chemical construct according to claim ~~3~~ 17 wherein the peak splitting isotopic label is contained within a substituted or unsubstituted alkylene diamine group.

19. (Original) A chemical construct according to claim 18 wherein the alkylene diamine group is substituted by an N-benzyl group.

20. (Original) A chemical construct according to claim 19 wherein the N-benzyl group has a methylene group which is substituted with the peak splitting atom deuterium.

21. (Previously Amended) A chemical construct according to claim 1 wherein the first cleavage site is selectively cleavable by one type of chemistry selected from a group of chemistries consisting of cleavage under acid conditions, base catalysed cleavage, oxidative cleavage, reductive cleavage, nucleophilic displacement, cleavage by 1,2 *bis* nucleophiles, electrophilic displacement, and thermal, photochemical and enzymatic cleavage, and the second cleavage site is selectively cleavable by a different type of chemistry selected from the said group.

22. (Currently Amended) A chemical construct according to claim 21 wherein the first cleavage site is cleavable by one type of chemistry selected from:

(i) photochemical cleavage, ~~e.g. photochemical cleavage of a nitrobenzylcarbamate group;~~

(ii) oxidation followed by cleavage through nucleophilic displacement~~, for example oxidation of a thiopyrimidine followed by nucleophilic displacement by an amine (e.g. a secondary amine such as N-methyl piperazine);~~

(iii) cleavage of a sulphonamide by nucleophilic displacement~~, for example by a thiolate nucleophile (e.g. mercaptoethanol I the presence of a strong base such as DBU)~~;

(iv) cleavage of enamine groups ~~(particularly those containing an enamine moiety conjugated to a carbonyl group; e.g. as 1-[4,4-dimethyl-2,6-dioxo-cyclohexylidene]ethyl amino)~~ with a 1,2-*bis* ~~nucleophile such as hydrazine or hydroxylamine or derivatives thereof~~; and

(v) transition metal catalysed cleavage of allyloxycarbonylamino groups~~, for example palladium (0) catalysed cleavage of allyloxycarbonylamino groups~~.

23. (Original) A chemical construct according to claim 22 wherein the second cleavage site is cleaved under acid conditions or by photolysis.

24. (Previously Amended) A chemical construct according to claim 21 wherein the first cleavage site is defined by a sulphonamide linker group, and the second cleavage site is optionally defined by a group, such as a Rink linker, which is cleavable under acidic conditions.

25. (Previously Amended) A chemical construct according to claim 21 wherein the first cleavage site is defined by a thiopyrimidine linker susceptible to

cleavage by oxidation followed by nucleophilic displacement, and the second cleavage site is optionally defined by a group, such as a Rink linker, which is cleavable under acidic conditions.

26. (Previously Amended) A chemical construct according to claim 21 wherein the first cleavage site is defined by a dde group and the second cleavage site is optionally defined by a group, such as a Rink linker, which is cleavable under acidic conditions.

27. (Currently Amended) A chemical construct according to claim 21 wherein the first cleavage site is cleavable under photochemical conditions and the second cleavage site is defined by a group~~, such as a Rink linker,~~ which is cleavable under acid conditions.

28. (Previously Amended) A chemical construct according to claim 21 wherein the first cleavage site is defined by a group such as allyloxycarbonylamino that can be cleaved by a transition metal such as palladium (0), and the second cleavage site is optionally defined by a group, such as a Rink linker, which is cleavable under acidic conditions

29. (Previously Amended) A chemical construct according to claim 21 wherein the first cleavage site is cleaved by oxidation followed by nucleophilic displacement.

30. (Original) A chemical construct according to claim 29 wherein the nucleophile is an amine.

31. (Original) A chemical construct according to claim 30 wherein the amine is a cyclic amine such as piperidine.

32.-51 (Cancelled)